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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,591	10/10/2003	Anthony B. Catalano	2003-01663	1026
30140	7590	12/16/2004	EXAMINER	
AL HARRISON 1018 PRESTON STREET, SUITE 100 HOUSTON, TX 77002			NGUYEN, THU V	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/683,591

Applicant(s)

CATALANO, ANTHONY B.

Examiner

Thu Nguyen

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/5/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.  
The abstract should avoid legal phraseology often used in patent claims, such as "means" (in line 2) and "said,".

### ***Claim Objections***

2. Claims 17, 36 are objected to because of the following informalities:
  - a. In claim 17, line 2, the claimed "air traffic control" should be corrected to "air traffic control centers".
  - b. In claim 36, line 2, the claimed "transportation control" should be corrected to "transportation control centers".

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. In claim 1, lines 22; claim 5, line 4; claim 11, line 3; claim 12, line 3; claim 13, line 3; claim 14, line 3; claim 16, line 2 the claimed "control centers" is ambiguous, there are

two type of control centers: the “flight control centers” and the “air traffic control centers”, it is not clear which type of control centers the claimed “control centers” refers to.

- b. In claim 6, line 3; claim 25, line 3, the claimed “airplane instrumentation” would have been ambiguous, there are quite a few instruments inside the aircraft, it is not clear what instruments should be included in the “instrumentation” in the claim.
- c. In claim 10, line 4, the claimed “which” is ambiguous, it is not clear if “which” refer to the “secure communications apparatus” or if it refers to the “transponder”.
- d. Other claims are rejected as being dependent on the rejected base claims.
- e. Claims 20-38 correspond with claims 1-19 and are similarly rejected as explained above.
- f. Applicant’s is requested to review all the claims to correct similar problem that might not be specifically listed by the examiner.

***Duplicate Claim warning***

5. Applicant is advised that should claim 37 be found allowable, claim 38 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeinch (US 2003/0227395) in view of Metcalf (US 2004/0056770) and further in view of Banerjee et al (US 2004/0061629).

As per claim 1, Zeinch teaches an override protocol system for assuming control and operation of an airplane, the system comprises: an airplane traversing predetermined airspace (para 0078); monitoring sensors (accelerometers, gyro-compasses) (para 0030, 0031); a control means for triggering immediate corrective action to override control of the airplane (para 0045-0047); a secure communications apparatus on board the airplane for communicating and cooperative interacting with communication apparatus located at a control center (para 0042-0043); and positioning means for monitoring the progress of the airplane (para 0049). Zeinch does not explicitly disclose an override means for remotely taking control of the airplane, flight control centers, air-traffic control centers, proximity transponders and cut off switch. However, Zeinch teaches the capability of providing remote precaution actions (para 0043; 0056) and setting up communication transceiver at a remote station (para 0042), Metcalf suggests providing remote control capability to the override system (para 0076), and Banerjee teaches providing

proximity transponders (para 0029; 0031), providing cutoff switch for switching off a subsystem in an aircraft would have been well known. Moreover, setting up flight control center at a specific location and air-traffic control centers for monitoring and controlling operation of aircrafts would have been well known, implementing control instruments at convenient flight control centers and air-traffic control centers would have been both well known and obvious matter of design choice. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement proximity transponders for monitoring proximity of the aircraft taught by Banerjee at the remote protected zone and to provide the capability of performing remote control taught by Metcalf to the aircraft of Zeinch in order to remotely controlling the aircraft from a protected zone.

As per claim 2-4, Metcalf teaches allowing authorized personnel at a remote center to control operation of the aircraft (para 0076). Further, protecting the flight control centers from unauthorized persons, authorizing operation to properly trained personnel with required security clearance would have been well known.

As per claim 5, Zeinch teaches receiving speed, direction from monitoring sources (para 0071). Moreover, providing other intelligence pertaining fuel, throttle position, etc. would have been well known and obvious design choice.

As per claim 6-7, Zeinch teaches including alarms, airplane controls (para 0055; 0065; 0056) with the capability of disabling a vehicle (para 0046; 0048). Moreover, including others monitoring sources such as security systems, etc. would have been well known and obvious matter of design choice.

As per claim 8-9, applying measures such as dumping fuel, shutting down the engine, etc. would have been well known measures for disable or limiting operation of a vehicle, selecting a specific disabling or limiting operation of a vehicle depending on the specific circumstances or needs would have been obvious design choice and requires only routine skill in the art.

As per claim 10-11, Zeinch teaches causing automatic activation of the airplane autopilot upon entering a security violation (para 0095), further, monitoring proximity of the airplane from proximity information of the transponders for appropriate control of the airplane would have been well known.

As per claim 12-13, Zeinch teaches preventing the pilot from operating the airplane (para 0047); and triggering remote control of the control center (para 0056).

As per claim 14-16, refer to claim 8 above. Furthermore, remotely activating automatic autopilot would have been well known.

As per claim 17-19, Zeinch teaches the capability of determining real time changing location and progress of the airplane (para 0049; 0071; 0078; 0081). Moreover, monitoring attitude of the aircraft would have been well known.


As per claim 20-38, refer to claims 1-17, 19 above. Zeinch also teaches extending the override system to land based vehicles (para 0048; 0057)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

December 8, 2004

  
**THU V. NGUYEN**  
**PRIMARY EXAMINER**